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| ERICSSON INC.<br>6300 LEGACY DRIVE<br>M/S EVR 1-C-11<br>PLANO, TX 75024 |             |                      | EXAMINER<br>MURRAY, DANIEL C    |                             |
|   |             |                      | ART UNIT<br>2443                | PAPER NUMBER                |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/598,152 | <b>Applicant(s)</b><br>CHRISTOFFERSSON ET AL. |  |
|                              | <b>Examiner</b><br>DANIEL C. MURRAY  | <b>Art Unit</b><br>2443                       |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 27-40 and 42-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-40 and 42-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>21 JAN 2010</u> | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 20APR2010 has been entered.

### *Information Disclosure Statement*

2. The information disclosure statement submitted on 21JAN2010 has been considered by the Examiner and made of record in the application.

### *Claim Rejections - 35 USC § 101*

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 27-52** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. **Claims 28-36, 39-40 and 42-52, and 41** are rejected by virtue of their dependency on **claims 27, 37, and 38** respectively.

**Claims 27-36** are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory “process” under 35 U.S.C. 101 must (1) be tied to particular machine, or (2) transform underlying

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subject matter (such as an article or material) to a different state or thing. See page 10 of In Re Bilski 88 USPQ2d 1385. The claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process. The method of managing a state memory including defining, dividing, and allocating is broad enough that the claim could be completely performed mentally, verbally or without a machine nor is any transformation apparent. The method is not clearly tied to a machine and could be completely performed mentally, verbally or without a machine. Furthermore, the division of the state memory is not tied to any particular machine and clearly is broad enough that the claim could be completely performed mentally, verbally or without a machine.

**Claim 37** states: A **unit for managing** a state memory adapted for storing state information applicable in a message communication between communications units in a communications system, characterized by: **a message class definer that define** at least two message classes of the messages communicated between said communications units; and **a state memory divider that divides** said state memory into at least two memory portions, each memory portion being assigned for storing state information associated with a specific message class; and in that said **message class definer** is configured for defining said at least two message classes based on at least one of: a priority type of said communications messages; an application protocol used when generating said communications messages; and a session type associated with communications messages.

**Claim 38** states: A **communications unit** adapted for message communication with at least one external communications unit in a communications system, said communications unit comprising: a state memory adapted for storing state information applicable in said message communication; and a **state memory managing unit**, characterized in that said state memory managing unit comprises: **a message class definer that define** at least two message classes of the

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messages communicated between said communications unit and said at least one external communications unit; and **a state memory divider that divides** said state memory into at least two memory portions, each memory portion) being assigned for storing state information associated with a specific message class; and in that said **message class definer** is configured for defining said at least two message classes based on at least one of: a priority type of said communications messages; an application protocol used when generating said communications messages; and a session type associated with communications messages.

**Applicant's specification** states: (page 20 lines 17-21) **The units 132, 134, 136 and 138 of the memory manager 120** may be provided as **software**, hardware or a combination thereof. The units 132 to 138 may be implemented together in the memory manager 130. Alternatively, a distributed implementation is also possible with some of the units provided elsewhere in the communications unit and/or state handler (with similar statements regarding implementation in software appearing throughout the specification).

Applicant attempts to claim non-statutory subject matter (i.e. software). Applicant fails to claim a proper computer readable medium and thus fails to fall within in a statutory category and is thus, considered software, per se. Applicant's specification cited in the previous Office Action clearly states that **the units 132, 134, 136 and 138 of the memory manager 120** may be provided as **software**, hardware or a combination thereof (see previous Office Action for further details)(Specification; page 20 lines 17-21). Therefore, all "units" and "message class definer, state memory divider, message analyzer, etc." are rendered non-statutory because Applicant chose to define the units/structure (defining the "means for") as being provided as software and can be reasonably interpreted as such.

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***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 27, 28, 31-35, 37-40, 44, 47-51** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Williams et al. (US Patent # 6,144,669)** in view of **Nakatsugawa (US Patent # US 6,243,830 B1)**.

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a) Consider **claim 27**, Williams et al. clearly show and disclose, a method of managing a state memory adapted for storing state information applicable in a message communication between communications units in a communications system, the method implemented by a first communication unit and a second communication unit comprising the steps of: defining at the first communication unit at least two message classes of the messages communicated between said the first communication unit and the second communication unit (abstract, column 2 lines 20-36); and dividing said memory in this first communication unit into at least two memory portions, each memory portion being assigned for storing state information associated with a specific message class (abstract, column 2 lines 37-57). However, Williams et al. does not specifically disclose that said state memory is arranged in the first communication unit and is allocated for storing state information used in message communication with the second communications unit; and in that said second communications unit requesting said first communications unit to allocate state memory space utilized for storing said state information used in said message communication with said second communications unit.

Nakatsugawa shows and discloses a state information managing method which is able to manage easily state information of respective communication units, wherein said state memory is arranged in the first communication unit and is allocated for storing state information used in message communication with the second communications unit (abstract, column 2 lines 20-34); and in that said second communications unit requesting said first communications unit to allocate state memory space utilized for storing said state information used in said message communication with said second communications unit (abstract, column 2 lines 20-34 lines 53-67).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Nakatsugawa and Williams et al. since both concern

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managing messaging in a communication network and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate a state memory manager and allocating state memory for storing state information, as taught by, Nakatsugawa into the system of Williams et al. for the purpose of reducing communication traffic volume required for state management (Nakatsugawa; column 1 lines 7-14), thereby reducing the amount of resources required for state management.

b) Consider **claim 28**, and **as applied to claim 27 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the method according to claim 27 wherein said defining step comprises defining said at least two message classes based on at least one of: a priority type of said communications messages (Williams; abstract, column 2 lines 20-36); an application protocol used when generating said communications messages; and a session type associated with communications messages.

c) Consider **claim 31**, and **as applied to claim 27 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the method according to claim 27, further comprising: determining a message class of a communications message (Williams; abstract, column 2 lines 20-36); and storing state information generated based on said communications message in a memory portion associated with said determined message class (Williams; abstract, column 2 lines 37-57).

d) Consider **claim 32**, and **as applied to claim 31 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the method according to claim 31 wherein said message class determining step comprises determining said message class based on data found in said communications message (Williams; abstract, column 2 lines 20-36).



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e) Consider **claim 33**, and **as applied to claim 32 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the method according to claim 32 further comprising determining whether said state information is to be stored in said memory portion (Williams; column 2 lines 37-57).

f) Consider **claim 34**, and **as applied to claim 33 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the method according to claim 33, wherein said step of determining whether said state information is to be stored comprises retrieving storage priority information from a look-up list comprising storage command information for said message classes (Williams; abstract, column 2 lines 37-57).

g) Consider **claim 35**, and **as applied to claim 34 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the method according to claim 34, wherein said step of determining whether said state information is to be stored comprises: investigating whether similar state information is already stored in said memory portion (Nakatsugawa; column 2 lines 27-41); and storing said state information if no similar state information is already stored in said memory portion (Nakatsugawa; column 2 lines 27-41).

h) Consider **claim 37**, Williams et al. clearly show and disclose, a unit for managing a state memory adapted for storing state information applicable in a message communication between communications units in a communications system, comprising: a message class definer that defines at least two message classes of the messages communicated between said communications units (abstract, column 2 lines 20-36); and a state memory divider that divides said state memory into at least two memory portions, each memory portion being assigned for storing information associated with a specific message class (abstract, column 2 lines 37-57); and in that said message class definer is configured for defining said at least two message classes based on at least one of: a priority type of

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said communications messages (abstract, column 2 lines 20-36); an application protocol used when generating said communications messages; and a session type associated with communications messages. However, Williams et al. does not specifically disclose a state memory adapted for storing state information applicable in said message communication; a state memory managing unit; that said state memory is arranged in a first communication unit and is allocated for storing state information used in message communication with a second communications unit; or in that said second communications unit requesting said first communications unit to allocate state memory space utilized for storing said state information used in said message communication with said second communications unit.

Nakatsugawa shows and discloses a state information managing method which is able to manage easily state information of respective communication units, wherein a state memory adapted for storing state information applicable in said message communication (abstract, column 2 lines 20-34); a state memory managing unit (column 2 lines 20-34); that said state memory is arranged in a first communication unit and is allocated for storing state information used in message communication with a second communications unit (abstract, column 2 lines 20-34); and in that said second communications unit requesting said first communications unit to allocate state memory space utilized for storing said state information used in said message communication with said second communications unit (abstract, column 2 lines 20-34 lines 53-67).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Nakatsugawa and Williams et al. since both concern managing messaging in a communication network and as such, both are with in the same environment.

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Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate a state memory manager and state memory for storing state information, as taught by, Nakatsugawa into the system of Williams et al. for the purpose of reducing communication traffic volume required for state management (Nakatsugawa; column 1 lines 7-14), thereby reducing the amount of resources required for state management.

i) Consider **claim 38**, Williams et al. clearly show and disclose, a communications unit adapted for message communication with at least one external communications unit in a communications system, said communications unit comprising: a message class definer that defines at least two message classes of the messages communicated between said communications unit and said at least one external communications unit (abstract, column 2 lines 20-36); and a state memory divider that divides said memory into at least two memory portions, each memory portion being assigned for storing information associated with a specific message class (abstract, column 2 lines 37-57); and in that said message class definer is configured for defining said at least two message classes based on at least one of: a priority type of said communications messages (abstract, column 2 lines 20-36); an application protocol used when generating said communications messages; and a session type associated with communications messages. However, Williams et al. does not specifically disclose a state memory adapted for storing state information applicable in said message communication; a state memory managing unit; that said state memory is allocated for storing state information used in message communication with one of the at least one external communications unit; or that said one external communications unit requesting said state memory managing unit to allocate state memory space utilized for storing said state information used in said message communication with said one external communications unit.

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Nakatsugawa shows and discloses a state information managing method which is able to manage easily state information of respective communication units, wherein a state memory adapted for storing state information applicable in said message communication (abstract, column 2 lines 20-34); a state memory managing unit (column 2 lines 20-34); that said state memory is allocated for storing state information used in message communication with one of the at least one external communications unit (abstract, column 2 lines 20-34); or that said one external communications unit requesting said state memory managing unit to allocate state memory space utilized for storing said state information used in said message communication with said one external communications unit (abstract, column 2 lines 20-34 lines 53-67).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Nakatsugawa and Williams et al. since both concern managing messaging in a communication network and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate a state memory manager and state memory for storing state information, as taught by, Nakatsugawa into the system of Williams et al. for the purpose of reducing communication traffic volume required for state management (Nakatsugawa; column 1 lines 7-14), thereby reducing the amount of resources required for state management.

j) Consider **claim 39**, and **as applied to claim 37 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 37, wherein said state memory divider is configured for dividing said state memory into at least two memory portions based on said message class definition from said message class definer (Williams; abstract, column 2 lines 37-57).

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k) Consider **claim 40**, and **as applied to claim 37 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 37, wherein said managing unit and said state memory are arranged in the first communication unit and said state memory is allocated for storing state information used in message communication with the second communications unit (Nakatsugawa; abstract, column 2 lines 20-34).

l) Consider **claim 44**, and **as applied to claim 37 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 37, wherein said message class definer is configured for defining said at least two message classes based on at least one of: a priority type of said communications messages (Williams; abstract, column 2 lines 20-36); an application protocol used when generating said communications messages; and a session type associated with communications messages.

m) Consider **claim 47**, and **as applied to claim 37 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 37, characterized by: message analyzer that determines a message class of a communications message (Williams; abstract, column 2 lines 20-36); and state storing unit that stores state information generated based on said communications message in a memory portion associated with said determined message class (Williams; abstract, column 2 lines 37-57).

n) Consider **claim 48**, and **as applied to claim 47 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 47, wherein said message analyzer is configured for determining said message class based on data found in said communications message (Williams; abstract, column 2 lines 20-36).

o) Consider **claim 49**, and **as applied to claim 47 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 47, wherein said message

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analyzer is configured to determine whether said state information is to be stored in said memory portion (Williams; abstract, column 2 lines 37-57).

p) Consider **claim 50**, and **as applied to claim 49 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 49, wherein said message analyzer is configured for retrieving storage priority information from an associated look-up list comprising storage command information for said message classes and for generating a storing command based on said storage priority information, said state storing unit being responsive to said storing command (Williams; abstract, column 2 lines 36-57).

q) Consider **claim 51**, and **as applied to claim 49 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 49, wherein said message analyzer is configured for investigating whether similar state information is already stored in said memory portion (Nakatsugawa; abstract, column 2 lines 27-41) and for generating a storing command if no similar state information is already stored in said memory portion, said state storing unit being responsive to said storing command (Nakatsugawa; abstract, column 2 lines 27-41).

8. **Claims 29, 30, 45, 46, and 53-55** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Williams et al. (US Patent # 6,144,669)** in view of **Nakatsugawa (US Patent # US 6,243,830 B1)** in further view of **Sakaguchi et al. (US Patent # US 2003/0212855 A1)**.

a) Consider **claim 29**, and **as applied to claim 27 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the method according to claim 27. However, Williams et al. as modified by Nakatsugawa does not specifically disclose that said dividing step comprises allocating an equal memory size to said at least two memory portions.

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Sakaguchi et al. show and disclose a system for controlling divided areas of a cache memory, wherein said dividing step comprises allocating an equal memory size to said at least two memory portions (figure 3, figure 5, paragraph [0028]).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Sakaguchi et al. and Williams et al. as modified by Nakatsugawa since both concern storing information and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate allocating memory sizes (equal or unequal allocations) to a number of memory portions, as taught by, Sakaguchi et al. into the system of Williams et al. as modified by Nakatsugawa for the purpose of enabling data to be stored in each of those areas automatically according to its state (Sakaguchi; paragraph [0006]), thereby preventing data to be accessed frequently from being swapped out by data not to be accessed so often.

b) Consider **claim 30**, and **as applied to claim 27 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the method according to claim 27. However, Williams et al. as modified by Nakatsugawa does not specifically disclose that said dividing step comprises allocating a first memory size to a first memory portion and a second different memory size to a second memory portion based on a first message class associated with said first memory portion and a second message class associated with said second memory portion.

Sakaguchi et al. show and disclose a system for controlling divided areas of a cache memory, wherein dividing step comprises allocating a first memory size to a first memory portion and a second different memory size to a second memory portion based on a first message class associated

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with said first memory portion and a second message class associated with said second memory portion (figure 3, figure 5, paragraph [0028]).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Sakaguchi et al. and Williams et al. as modified by Nakatsugawa since both concern storing information and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate allocating memory sizes (equal or unequal allocations) to a number of memory portions, as taught by, Sakaguchi et al. into the system of Williams et al. as modified by Nakatsugawa for the purpose of enabling data to be stored in each of those areas automatically according to its state (Sakaguchi; paragraph [0006]), thereby preventing data to be accessed frequently from being swapped out by data not to be accessed so often.

c) Consider **claim 45**, and **as applied to claim 37 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 37. However, Williams et al. as modified by Nakatsugawa does not specifically disclose that said state memory divider is configured for allocating an equal memory size to said at least two memory portions.

Sakaguchi et al. show and disclose a system for controlling divided areas of a cache memory, wherein that said state memory divider is configured for allocating an equal memory size to said at least two memory portions (figure 3, figure 5, paragraph [0028]).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Sakaguchi et al. and Williams et al. as modified by Nakatsugawa since both concern storing information and as such, both are with in the same environment.



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Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate allocating memory sizes (equal or unequal allocations) to a number of memory portions, as taught by, Sakaguchi et al. into the system of Williams et al. as modified by Nakatsugawa for the purpose of enabling data to be stored in each of those areas automatically according to its state (Sakaguchi; paragraph [0006]), thereby preventing data to be accessed frequently from being swapped out by data not to be accessed so often.

d) Consider **claim 46**, and **as applied to claim 37 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 37. However, Williams et al. as modified by Nakatsugawa does not specifically disclose that said state memory divider is configured for allocating a first memory size to a first memory portion and a second different memory size to a second memory portion.

Sakaguchi et al. show and disclose a system for controlling divided areas of a cache memory, wherein said state memory divider is configured for allocating a first memory size to a first memory portion and a second different memory size to a second memory portion (figure 3, figure 5, paragraph [0028]).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Sakaguchi et al. and Williams et al. as modified by Nakatsugawa since both concern storing information and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate allocating memory sizes (equal or unequal allocations) to a number of memory portions, as taught by, Sakaguchi et al. into the system of Williams et al. as modified by Nakatsugawa for the purpose of enabling data to be stored in each of those areas

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automatically according to its state (Sakaguchi; paragraph [0006]), thereby preventing data to be accessed frequently from being swapped out by data not to be accessed so often.

e) Consider **claim 53**, and **as applied to claim 1 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the method according to claim 1. However, Williams et al. as modified by Nakatsugawa does not specifically disclose that the state memory is divided before said first communication unit and said second communication unit start transmitting data messages therebetween.

Sakaguchi et al. show and disclose a system for controlling divided areas of a cache memory, wherein the state memory is divided before said first communication unit and said second communication unit start transmitting data messages therebetween (paragraph [0028]).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Sakaguchi et al. and Williams et al. as modified by Nakatsugawa since both concern storing information and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate allocating memory sizes (equal or unequal allocations) to a number of memory portions before transmitting data, as taught by, Sakaguchi et al. into the system of Williams et al. as modified by Nakatsugawa for the purpose of enabling data to be stored in each of those areas automatically according to its state (Sakaguchi; paragraph [0006]), thereby allowing data to be stored in a particular portion of memory when it is required. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to divide the state memory before starting to transmit data messages between the communications unite because it

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would have been necessary to define where the message state information is stored before it can be stored (i.e. it would have been necessary/obvious to set up a storage system before actually using it).

f) Consider **claim 54**, and **as applied to claim 37 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 37. However, Williams et al. as modified by Nakatsugawa does not specifically disclose that the state memory is divided before the communication units start transmitting data messages therebetween.

Sakaguchi et al. show and disclose a system for controlling divided areas of a cache memory, wherein the state memory is divided before the communication units start transmitting data messages therebetween (paragraph [0028]).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Sakaguchi et al. and Williams et al. as modified by Nakatsugawa since both concern storing information and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate allocating memory sizes (equal or unequal allocations) to a number of memory portions before transmitting data, as taught by, Sakaguchi et al. into the system of Williams et al. as modified by Nakatsugawa for the purpose of enabling data to be stored in each of those areas automatically according to its state (Sakaguchi; paragraph [0006]), thereby allowing data to be stored in a particular portion of memory when it is required. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to divide the state memory before starting to transmit data messages between the communications unite because it would have been necessary to define where the message state information is stored before it can be stored (i.e. it would have been necessary/obvious to set up a storage system before actually using it).

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g) Consider **claim 55**, and **as applied to claim 38 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the communications unit according to claim 38. However, Williams et al. as modified by Nakatsugawa does not specifically disclose that wherein the state memory is divided before data messages are communicated with the one external communications unit.

Sakaguchi et al. show and disclose a system for controlling divided areas of a cache memory, wherein the state memory is divided before data messages are communicated with the one external communications unit (paragraph [0028]).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Sakaguchi et al. and Williams et al. as modified by Nakatsugawa since both concern storing information and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate allocating memory sizes (equal or unequal allocations) to a number of memory portions before transmitting data, as taught by, Sakaguchi et al. into the system of Williams et al. as modified by Nakatsugawa for the purpose of enabling data to be stored in each of those areas automatically according to its state (Sakaguchi; paragraph [0006]), thereby allowing data to be stored in a particular portion of memory when it is required. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to divide the state memory before starting to transmit data messages between the communications unite because it would have been necessary to define where the message state information is stored before it can be stored (i.e. it would have been necessary/obvious to set up a storage system before actually using it).

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9. **Claims 36, 42-43, and 52** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Williams et al. (US Patent # 6,144,669)** in view of **Nakatsugawa (US Patent # US 6,243,830 B1)** in further view of **Leung et al. (US Patent Publication # US 2002/0132613 A1)**.

a) Consider **claim 36**, and **as applied to claim 35 above**, of Williams et al. as modified by Nakatsugawa clearly show and disclose, the method according to claim 35. However, Williams et al. as modified by Nakatsugawa does not specifically disclose that said step of determining whether said state information is to be stored comprises: compressing said communications message; calculating a compression factor for said communications message; and determining whether said state information is to be stored in said memory portion based on said compression factor.

Leung et al. show and disclose message compression and more particularly to a method and system for providing a context, which is a dictionary and/or code related to the dictionary, for message compression, wherein said step of determining whether said state information is to be stored comprises: compressing said communications message (paragraph [0031], [0033], [0035]); calculating a compression factor for said communications message (paragraph [0037], [0038]); and determining whether said state information is to be stored in said memory portion based on said compression factor (paragraph [0033]).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Leung et al. and Williams et al. as modified by Nakatsugawa since both concern managing messaging in a communication network and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate message compression and storage based on compression, as taught by, Leung et al. into the system of Williams et al. as modified by Nakatsugawa for the

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purpose of storing information from one communications session to another (Leung; paragraph [0011], [0033]), thereby decreasing the amount of information that needs to be exchanged.

b) Consider **claim 42**, and **as applied to claim 37 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 37. However, Williams et al. as modified by Nakatsugawa does not specifically disclose that said state information is used during compression and/or decompression of said communications messages.

Leung et al. show and disclose message compression and more particularly to a method and system for providing a context, which is a dictionary and/or code related to the dictionary, for message compression, wherein that said state information is used during compression and/or decompression of said communications messages (paragraph [0033]).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Leung et al. and Williams et al. as modified by Nakatsugawa since both concern managing messaging in a communication network and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate state information is used during compression/decompression, as taught by, Leung et al. into the system of Williams et al. as modified by Nakatsugawa for the purpose of storing information from one communications session to another (Leung; paragraph [0033]), thereby decreasing the amount of information that needs to be exchanged.

c) Consider **claim 43**, and **as applied to claim 37 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 37. However, Williams et al. as modified by Nakatsugawa does not specifically disclose a compressor; and a decompressor, wherein said state information is used by at least one of said compressor and said decompressor.

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Leung et al. show and disclose message compression and more particularly to a method and system for providing a context, which is a dictionary and/or code related to the dictionary, for message compression, wherein a compressor; and a decompressor, wherein said state information is used by at least one of said compressor and said decompressor.

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Leung et al. and Williams et al. as modified by Nakatsugawa since both concern managing messaging in a communication network and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate a compressor/decompressor and state information being used during compression/decompression, as taught by, Leung et al. into the system of Williams et al. as modified by Nakatsugawa for the purpose of storing information from one communications session to another (Leung; paragraph [0033]), thereby decreasing the amount of information that needs to be exchanged.

d) Consider **claim 52**, and **as applied to claim 49 above**, Williams et al. as modified by Nakatsugawa clearly show and disclose, the unit according to claim 49. However, Williams et al. as modified by Nakatsugawa does not specifically disclose that said message analyzer is configured for receiving a compression factor obtained during compressing said communications message and for generating a storing command based on said compression factor, said state storing unit being responsive to said storing command.

Leung et al. show and disclose message compression and more particularly to a method and system for providing a context, which is a dictionary and/or code related to the dictionary, for message compression, wherein said message analyzer is configured for receiving a compression

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factor obtained during compressing said communications message (paragraph [0031], [0033], [0035], [0037], [0038]) and for generating a storing command based on said compression factor, said state storing unit being responsive to said storing command (paragraph [0033]).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Leung et al. and Williams et al. as modified by Nakatsugawa since both concern managing messaging in a communication network and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate message compression and storage based on compression, as taught by, Leung et al. into the system of Williams et al. as modified by Nakatsugawa for the purpose of storing information from one communications session to another (Leung; paragraph [0011], [0033]), thereby decreasing the amount of information that needs to be exchanged.

### ***Response to Arguments***

10. Applicant's arguments filed 20APR2010 have been fully considered but they are not persuasive.

Applicant argues that Nakatsugawa fails to disclose or suggest “the second communications unit requests the first communication unit to allocate state memory space utilized for storing said state information used in the message communication with the second communications unit”.

The Examiner respectfully disagrees; Nakatsugawa clearly discloses the second communications unit requests the first communication unit to allocate state memory space utilized for storing said state information used in the message communication with the second communications unit (abstract, column 2 lines 20-41, column 3 lines 43-67, column 6 lines 47-58).



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Nakatsugawa discloses report communication units (second communication units) rewriting the state information stored in a memory portion into new state information after change if the state information in own communication unit has been changed; and a first transmitting/receiving portion for adding the state information stored in the memory portion and own address to the recovery command (request) and then transmitting the recovery command (request) when respective report communication units (second communication units) receive the recovery command (request) for recovering the state information; and the collecting communication unit (first communication unit) comprising: a second transmitting/receiving portion for transmitting the recovery command (request) to recover the state information (alter its own state memory) and then receiving the recovery command (request) to which changed state information and their own addresses of respective report communication units (second communication units) are added collectively.

Nakatsugawa also discloses in the communication unit 1-2 (collecting communication unit)(first communication unit), the transmitting/receiving I/F 11-2 receives the recovery command (request) from the communication unit 1-n (second communication unit), and stores respective state information in the received recovery command into the state information memory 9-2.

Like the above, when the state information has been changed in respective communication units, the state information in the state information memories are rewritten and the report flags are set. In addition, when the recovery command (request) is received, the report flag is reset, then its own address and the state information are added to the recovery command (request), and then they are transmitted.

Clearly the recovery command functions as a request that is sent from one communication unit to another. It is also clearly the receiving communication unit alters its state memory upon receipt of the recovery command.

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Therefore, Nakatsugawa clearly discloses the second communications unit requests the first communication unit to allocate state memory space utilized for storing said state information used in the message communication with the second communications unit.

### ***Conclusion***

The Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the Applicant, in preparing the responses, to fully consider each of the cited references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage disclosed by the Examiner.

With respect to any amendments to the claimed invention, it is respectfully requested that Applicant indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

If Applicant intends to make numerous amendments the Examiner respectfully requests that Applicant submit a clean copy of the claims in addition to the marked up copy of the claims in order to expedite the examination process.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 2010/0142700 A1
- US 2010/0067519 A1

- US 7,657,253 B2
- 5,950,231

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL C. MURRAY whose telephone number is 571-270-1773. The examiner can normally be reached on Monday - Friday 0800-1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on (571)-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. C. M./  
Examiner, Art Unit 2443

/Tonia LM Dollinger/

Supervisory Patent Examiner, Art Unit 2443